CHANGING

THE WAY

BUSINESS

COMMUNICATES

SOUND SOLUTIONS

PROFESSIONAL AUDIO HANDBOOK 2003/2004

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SONY

CONTENTS

Whether its role is to inform, influence, educate or entertain, audio touches the lives of billions of people every day.

Digital technology has given everyone – from musicians and broadcasters to producers of corporate presentations – the freedom to create and distribute high quality audio more rapidly, more cost effectively and with greater flexibility than ever before. For end users, the impact of digital sound has been equally profound. From pocket sized audio players than can store hundreds of songs to multimedia PCs, DVD and the latest generation of gaming consoles, digital audio is everywhere.

For more than 20 years Sony has been synonymous with the production and distribution of high quality audio. With a world-leading reputation for design expertise as well as technological innovation, Sony is constantly redefining the creative and technical possibilities for live and recorded sound.

Drawing on its deep understanding of film, television and music entertainment as well as networked multimedia technologies, Sony is your perfect partner to provide not just individual audio products but complete audiovisual systems. The result? Every time you choose a Sony professional audio product, you can be safe in the knowledge that it has been designed not only to perform superbly over years of daily use, but to integrate perfectly with the rest of your audiovisual systems – now and in the future.

Audio Production

It's twenty years since the Compact Disc revolutionised our appreciation and enjoyment of recorded sound. Fast forward to today, where MiniDisc and a new generation of net-enabled audio players have given us even more opportunities to enjoy great-sounding music any time, anywhere.

Its convenience aside, digital technology has also transformed our expectations about the purity of audio in business applications as well as in theatres, cinemas and the home. Digital multichannel surround soundtracks are an essential part of the modern film-going experience, adding greater drama realism and excitement to big-screen entertainment. Super Audio CD – a collaborative project uniting Sony and other leading industry partners – is pushing the limits of reproducible sound to new levels for audiophiles who demand nothing less than flawless reproduction. This evolution towards higher quality places fresh demands on the audio production process itself with each link in the signal chain from microphone to loudspeaker placed under increasing scrutiny.

On stage and in the recording studio, Sony products play a critical role in capturing and retaining every nuance of a musical performance – whether it's destined for CD, DVD, digital radio and television or the web.

Audio For Television and Video Production

As well as using Sony professional video technology on a daily basis, thousands of television producers and broadcasters worldwide rely on Sony audio equipment to provide a sparkling dimension to their programmes.

The light weight, rugged performance and generous battery life of the latest generation Sony wireless microphones allows newsgathering teams, drama and documentary programme makers to capture crystal clear audio via a compact receiver that clips onto the body of virtually any camcorder. The result? More spontaneity and less hassle for crews, reduced operational costs and a faster return on investment.

Whether it's on location or in the production suite, Sony mixers score on usability and flexible configuration options while preserving the absolute integrity of the audio signal. The versatility of digital designs impacts directly on the bottom line of busy programme makers, reducing set-up time between projects as well as affording engineers and producers fresh creative options. Whether it's for blending dozens of separate sources for live transmission of a major sports event or post producing programmes for international distribution on television and DVD, the ergonomics and reliability of Sony mixing consoles makes them the only realistic choice when great audio is as important as great-looking pictures.

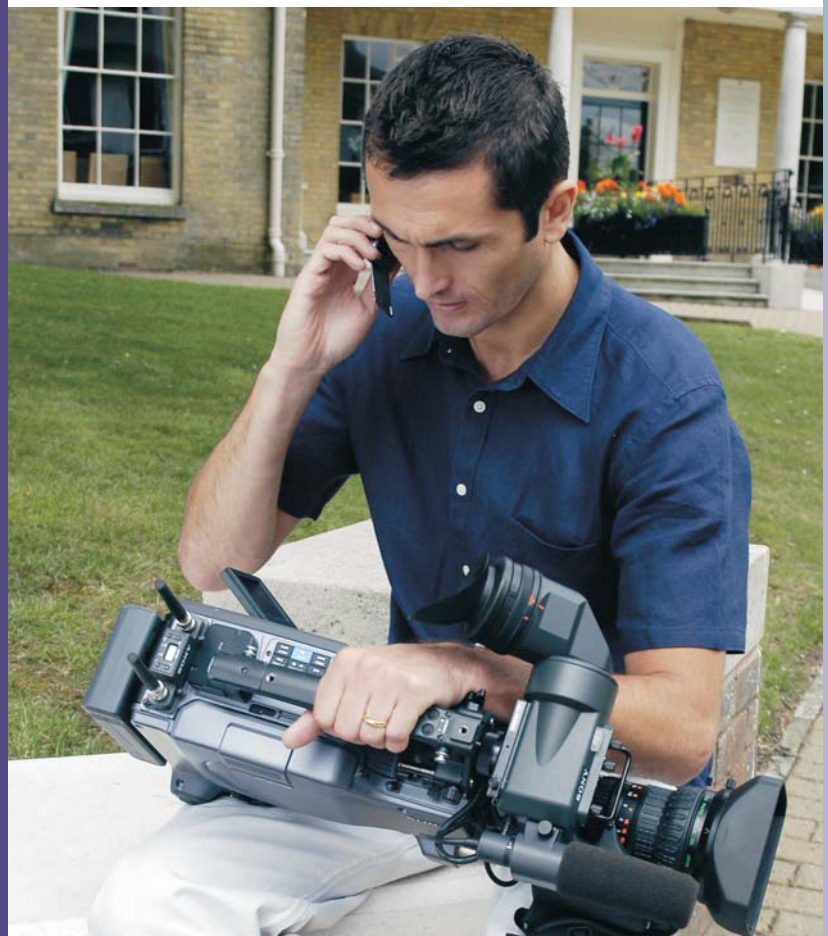
Multimedia Presentation

A picture may be worth a thousand words, but audio plays a vital role in communicating more effectively with your audience, whether it's in the smallest meeting room or the largest airport terminal building.

In theatres, schools, conference rooms, retail environments, places of worship and other public and private spaces, Sony products for audiovisual presentations and sound reinforcement applications add impact and intelligibility – whatever your message is.

Ruggedly constructed amplifiers and loudspeakers are the perfect complement to the Sony range of data projectors and big-screen plasma monitor displays. Versatile signal processing and system management tools offer unprecedented levels of control for sound designers and engineers of the most large scale and sophisticated theatrical and live concert events.

Best of all, you can count on Sony know-how to help you consider the best options for planning, installing and running your total audiovisual installation. With Sony on hand to provide guidance and support, you can be confident that your audio investment will be delivering real value from day one – with the flexibility built in to anticipate your future requirements.



MICROPHONES

The most revealing digital recorder or mixing console can't improve on the quality of the audio source that's feeding it. Rightly viewed as the most critical link in the entire production chain, it is the microphone that ultimately determines the fidelity of any reproduced sound. The Sony microphone range for 2003/2004 includes exciting new wired and wireless models for specialised applications as well as general-purpose models offering better audio performance and value for money than ever before.

Microphones for Presentation Applications

From mobile phones to notebook PCs linked to networks without a cable in sight, the world is going wireless. Liberating on-stage vocalists and performers, wireless microphones are suddenly everywhere. At corporate events, sales presentations and in lecture theatres, handheld microphones and ultra-discreet tie-clip models give presenters the freedom to engage their audience with more mobility and spontaneity. Indeed, wireless technology has become such an essential part of live sound production that it would be unthinkable to stage a large-scale concert or theatrical performance without depending on today's easy-to-configure multichannel wireless transmitter and receiver systems.

Microphones for Audio Production

Recording engineers the world over are immensely protective of their own personal collection of microphones, regarding them as an essential part of their sonic signature. Building on decades of experience in audio acquisition, Sony offers a comprehensive choice of wired microphones that offers musicians, broadcasters and producers of audiovisual presentations uncompromised audio as well as utterly dependable performance.

In the studio, many of the world's most eminent sound engineers turn to the Sony C-800G vacuum tube condenser microphone whenever they need to capture the ultimate vocal performance. When the highest possible audio fidelity is paramount for broadcast and theatrical applications, the ECM-88 electret condenser delivers a superlative frequency response and studio-quality noise levels in a tiny package that's scarcely visible to the audience.

For production, for broadcast, for presentation; audio professionals choose Sony microphones when they demand great performance as well as assured reliability and superb value for money.

Microphones for ENG and Video Production

Compact, rugged wireless models from Sony have revolutionised the newsgathering process, allowing camera operators to acquire superb quality audio without the need for a dedicated boom operator or the intrusion of a wired microphone in shot. Teaming 'plug and play' simplicity with stable performance and extended battery life, there's a complete range of Sony wireless transmitters and receivers to meet the needs of ENG/EFP, presentation and live performance. If you're looking for all the

benefits of interference free wireless operation at an affordable cost, finding the perfect solution is now easier than ever before with the adaptable new UWP range. Just select the system elements you need or pick one of six turnkey packages – comprising microphone, transmitter and tuner – and enjoy superb performance right out of the box, with professional features found on far more expensive wireless systems.

Wireless Microphone Tuners and Camcorders Combinations

	Built in Wireless	DC Output for Wireless Turner	audio-output connector type (front)	audio-input connector type (rear)
HDCAM Camcorders				
HDW-F900	No	Yes	XLR (x1)	XLR (x2)
HDW-750/750P HDW-730	Yes	Yes	XLR (x1)	XLR (x2)
Digital Betacam Camcorders				
DVW-790WS/790WSP DVW-709WS/709 DVW-707/707P	No	Yes	XLR (x1)	XLR (x2)
MPEG IMX Camcorder				
MSW-900/900P	Yes	Yes	XLR (x2)	XLR (x2)
Betacam SX Camcorders				
DNW-7/7P DNW-9WS/9WSP DNW-90/90P DNW-90WS/90WSP	Yes	Yes	XLR (x1)	XLR (x2)
DVCAM Camcorders				
DSR-570WS/570WSP DSR-390/390P	Yes	Yes	XLR (x1)	XLR (x2)
DSR-250/250P	No	Yes	XLR (x1)	XLR (x2)
DSR-PD150/150P	No	No	XLR (x2)	-
DSR-PDX10/PDX10P	No	No	XLR (x2)	-

Lavalier Mic Accessories

Required Optional Mounting-Accessories		
WRR-862B	WRR-855B	UWP C Series (RX)
•	••	*
•	•••	*
•	••	*
•	•••	*
•	•••	*
•	CA-WR855	*
•	••	*
-	-	*
-	-	*

- • A-8278-057-A
- •• A-8278-057-A BTA-801
- ••• Optional mounting-accessory is not required
- * Optional mounting-accessory is not required when mounting on the camcorder accessory shoe

UWP Series UHF Synthesized Wireless Microphone System

At last – a wireless solution that's simple enough for anybody to set up and use. The UWP Series UHF Synthesized Wireless Microphone System is the perfect partner for camera crews, performers, musicians and audiovisual presenters alike. Providing superb wireless diversity performance at a truly affordable price, UWP is an all-in-one solution that includes everything that's needed to get you up and running in minutes. Built around five core elements – a lavalier/bodypack transmitter, a wireless handheld microphone, a portable tuner, a half-rack-size tuner and a tuner module, the UWP Series is available in six turnkey packages, each comprising a microphone, transmitter and tuner. With clips, connectors and other accessories included in every package, with UWP you're ready-to-go… straight out of the box. Rock-solid interference-free wireless performance is assured by UHF PLL-synthesized system with space-diversity reception and a tone squelch function. Running on low-cost AA cells rather than costly 9v batteries, the Sony UWP Series teams high-end wireless performance with drastically reduced operational costs.

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MB-8N Tuner Base Unit and WRU-8N UHF Synthesized Tuner Module

Setting new standards of performance and functionality for professional wireless microphone systems, Sony introduces the MB-8N Tuner Base Unit and WRU-8N UHF Synthesized Tuner Module – the world's first 'networkable' wireless system. Occupying a single rack space, the slender MB-8N accommodates up to four WRU-8N tuner modules with the possibility of daisy chaining up to four base units to create a 16-channel wireless system. The tuner module's RF space diversity design achieves exceptional audio performance with a wide dynamic range and low levels of noise and distortion. Over a standard Ethernet connection, a complete system can be set up and controlled from a PC running the supplied software. This includes 'snapshot' storage and recall of different channel configurations, making the MB-8N/WRU-8N an ideal choice when complex multi-mic set-ups need to be adjusted on stage between different performances. A separate audio monitoring feature is included to allow the individual outputs of the tuner units to be checked. For theatres, television studios, location recording and live PA applications, the Sony MB-8N/WRU-8N offers professional users a dramatic leap forward in wireless performance, features and flexibility.

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ECM-88 Microphones

When compact size, quality and reliability are of paramount importance, the ECM-88 series of sub miniature electret condenser microphones is the perfect choice for today's demanding broadcast, theatrical and in the field applications. Teaming high sensitivity with an ultra-flat, wide frequency response and incredibly low noise characteristics thanks to a new dual-diaphragm design, the omni directional capsule measures just 3.5 x 3.5 x 16.8 mm, dramatically reducing the microphone's on-camera visibility and making it easy to conceal in a stage costume. A highly practical feature is the water-resistant design that reduces the risk of moisture entering the capsule – an invaluable plus for outdoor events where the weather can be a challenge for other microphones. Operational versatility is increased with a choice of termination options plus two types of microphone holders.

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C-800G

Vacuum Tube Selectable Directivity Condenser Microphone

The C-800G vacuum tube condenser microphone has been specifically designed for the highest possible sound reproduction quality. The C-800G is ideally suited to high quality vocal recording in a studio environment.

- Vacuum tube condenser microphone
- Selectable directivity (omni and cardioid)
- Large diaphragm capsule
- Built-in cooling system gives low noise and distortion

Specifications

Frequency response:
20 Hz – 18 kHz

Max SPL:
131 dB

Dynamic range:
>113 dB

Weight:
860 g
(excluding suspension)

Dimensions:
Microphone
Ø57 x 191mm
Cooling section
180 (W) mm

Supplied Accessories

Carry case

Windshield

Suspension

Stand adaptors (x2)

Required Accessories

AC-MC800G
AC Power Supply

F-710

Cardioid Microphone

The F-710 dynamic microphone is the ideal choice for general voice pick-up in a sound reinforcement application.

- Dynamic capsule
- Built-in On/Off switch
- High sensitivity
- Neodymium magnet

Specifications

Frequency response:
70 Hz – 15 kHz

Directivity:
Cardioid

Weight:
250 g

Dimensions:
Ø54 x 177 mm

Supplied Accessories

Microphone holder

Stand adaptor

F-720

Cardioid Microphone

The F-720 dynamic microphone is suitable for general voice recording where handling noise must be kept to a minimum.

- Dynamic capsule
- Built-in On/Off switch
- Efficient capsule shock-mount system

Specifications

Frequency response:
50 Hz – 13 kHz

Directivity:
Cardioid

Weight:
260 g

Dimensions:
Ø37.6 x 160 mm

Supplied Accessories

Microphone holder

Stand adaptor

F-780

Cardioid Microphone

The F-780 dynamic microphone gives smooth frequency reproduction for those critical vocal applications in live and television production.

- Rugged dynamic capsule
- AlNiCO magnet
- CCAW voice coil
- Resilient body structure

Specifications

Frequency response:
50 Hz – 18 kHz

Directivity:
Cardioid

Weight:
290 g

Dimensions:
Ø51 x 165 mm

Supplied Accessories

Microphone holder

Stand adaptor

A-25

Microphone Table Stand

A-25 Specifications

Threads:
5/16 and 1/2-inch

Mass:
1.0 kg

ECM-530

Electret Condenser Table-top Microphone

The ECM-530 is a compact, high quality table-top microphone for precise voice pick-up.

- Electret condenser capsule
- Extendable / flexible gooseneck
- Two-way powering (internal battery / 12 - 48 V phantom supply)

Specifications

Frequency response:
70 Hz – 18 kHz

Directivity:
Cardioid

Weight:
325 g

Supplied Accessories

N/A

ECM-670

Super-cardioid Microphone

The ECM-670 has super cardioid characteristics, which are suited to directional sound applications where indirect sound rejection is preferred.

- Electret condenser capsule
- 12 - 48 V phantom supply operation
- Low-cut filter
- Rugged design

Specifications

Frequency response:
70 Hz – 16 kHz

Max SPL:
125 dB

Weight:
165 g

Dimensions:
Ø21 x 226 mm

Supplied Accessories

Windshield

ECM-672

Super-cardioid Microphone

The ECM-672 has super cardioid characteristics which are suited to directional sound applications where indirect sound rejection is preferred and a wide frequency response is required.

- Electret condenser capsule
- Two-way powering (internal battery / 12 – 48 V phantom supply)
- Low-cut filter switch (two position)
- Battery status indication

Specifications

Frequency response:
50 Hz – 16 kHz

Max SPL:
114 dB

Battery life:
3,000 hours (typical)

Weight:
230 g

Dimensions:
Ø24 x 304 mm

Supplied Accessories

Windshield

ECM-44 Series

Omni-directional Electret Condenser Lavalier Microphone

The ECM-44 Series are miniature-headed electret condenser lavalier microphones. They are ideal for general voice pick-up.

Connection types

(Letters indicate suffix to microphone type number)

BPT: See below

BMP: See below

BC: See below

B: See below

Specifications

Frequency response:
40 Hz – 15 kHz

Max SPL:
122 dB

Weight:
2 g (mic head)

Dimensions:
Ø8.5 x 14.5 mm (mic head)

Supplied Accessories

Tie clip (horizontal)

Windshield

ECM-55B

Omni-directional Electret Condenser Lavalier Microphone

The ECM-55B electret condenser lavalier microphone has a tailored frequency response for enhanced presence and voice quality.

- Supplied power unit with internal battery and male XLR connector
- Alternative 12 – 48 V phantom supply operation
- Black mic body and cable

Specifications

Frequency response:
30 Hz – 18 kHz

Max SPL:
126 dB

Weight:
7 g (mic head)

Dimensions:
Ø10.6 x 16.3 mm (mic head)

Supplied Accessories

Tie clip (horizontal)

Windshield

Key:

BPT:

Pigtail version with pre-soldered wires (black cable and mic)

BMP:

3.5 mm locking jack for connection to Sony wireless transmitter WRT-805B (black cable and mic)

ECM-66B

Cardioid Electret Condenser Lavalier Microphone

The ECM-66B electret condenser lavalier microphone provides a cardioid pattern for instrumental and voice applications where indirect sound is rejected.

- Supplied power unit with internal battery and male XLR connector
- Alternative 12 – 48 V phantom supply operation
- Black mic body and cable

Specifications

Frequency response:
70 Hz – 14 kHz

Max SPL:
130 dB

Weight:
7 g (mic head)

Dimensions:
Ø10.6 x 24 mm (mic head)

Supplied Accessories

Tie clip (horizontal)

Windshield

ECM-77 Series

Omni-directional Electret Condenser Lavalier Microphone

ECM-77 Series of electret condenser lavalier microphones have an ultra miniature head and high performance frequency response for the most critical of recordings.

Connection types

(Letters indicate suffix to microphone type number)

BPT: See below

BMP: See below

BC: See below

B: See below

Specifications

Frequency response:
40 Hz – 20 kHz

Max SPL:
120 dB

Weight:
1.5 g (mic head)

Dimensions:
Ø5.6 x 12.5 mm (mic head)

Supplied Accessories

N/A

BC:

Hirose 4-pin locking plug for connection to Sony wireless transmitters WRT-822B / 860A (black cable and mic)

B:

Power unit with internal battery and male XLR connector. This unit may also be used for 12 – 48 V phantom supply (black cable and mic)

ECM-88/ECM-88FPT

The Sony ECM-88 is the latest addition to the ECM range of microphones. Using the latest in dual diaphragm technology this microphone provides excellent sound quality and very low inherent noise. The design reduces cable noise to a bare minimum and the capsule is also water resistant.

ECM-88

ECM-88FPT

Specifications

Frequency response:
20 Hz-20k Hz

Maximum input:
125 dB SPL

Dimension of capsule:
3.5 x 3.5 x 16.8 mm

Also Available

ECM-88FPT
(flesh colour version)

Supplied Accessories

Tie-clip, Dracula-clip, Urethane wind screen, Carrying case, Operating instructions.

ECM-88FPT - Accessories not supplied.

DC-78

The DC-78 is an optional power unit that allows the connection of a microphone fitted with a Sony 4-pin connector (SMC9-4P) to be powered via an internal battery. This unit also instantly converts the microphone to an XLR connection.

Specifications

Power requirement:
LR-6 alkaline battery (AA-size)

Battery life:
Approx. 5,000H

Output connector: **Input:**
Sony 4-pin connector (SMC9-4P)

Output:
XLR-3-12C type

Dimensions:
F20.0 x 144.0 mm

Mass:
Approx. 130 g (4.59 oz) with battery
Approx. 108 g (3.80 oz) without battery

Supplied Accessories

Operating instructions

Connection

ECM-88/ECM-77: Hirose 4 pin Locking plug for connection to Sony wireless transmitters WRT-822 / WRT-8B.

PT: Pigtail version with pre-soldered wires.

ECM-166 Series

Cardioid Electret Condenser Lavalier Microphone

The ECM-166 Series of electret condenser lavalier microphones provide a cardioid polar pattern ensuring optimal audio quality with minimum feedback. Designed for use with, and powered from, Sony wireless transmitters.

Connection types

(Letters indicate suffix to microphone type number)

BMP: See page 9

BC: See page 10

Specifications

Frequency response:
100 Hz – 10 kHz

Max SPL:
120 dB

Weight:
3.5 g (mic head)

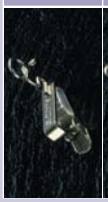
Dimensions:
Ø12.5 x 23.5 mm (mic head)

Supplied Accessories

Tie clip (horizontal)

Windshield

Lavalier Microphone Accessories

	Holder Clip				Windscreen		
Type	Single (horizontal)	Single (vertical)	Double (horizontal)	Safety pin type	Metal	Urethane	Urethane
							
Finish	Black	Black	Black	Black Silver	Metal	Urethane	Urethane
ECM-88	 SAD-HV77B		 SAD-W88B	 SAD-P88B	N/A	AD-R88B	AD-C88
ECM-77	SAD-H77B	SAD-V77B	SAD-W77B	SAD-S77	AD-R77B	AD-C77B	AD-C77
ECM-66	SAD-H55B	N/A	N/A	N/A	N/A	AD-R66B	N/A
ECM-55	SAD-H55B	N/A	N/A	N/A	AD-R55B	N/A	N/A
ECM-44	SAD-H44B	N/A	N/A	N/A	N/A	AD-R44B	N/A
Remarks	10 pcs in each package	10 pcs in each package	6 pcs in each package	6 pcs in each package	6 pcs in each package	12 pcs in each package	12 pcs in each package (6 colours x 2 pcs

MB-8N

UHF Wireless Microphone Receiver Base Unit

- Compact design
- Built in antenna divider
- Latest technology
- Easy set up
- Diversity reception
- PC control via Ethernet
- Mic or Line level balanced XLR output
- Provides 9 Volts DC for active antennas
- Internal antenna divider
- RF input attenuation
- Quick module (WRU-8N) release
- If more than 16 channels are required, a WD-820A is required

Specifications

Dynamic range:
116 dB

Frequency Response:
40 Hz - 20 KHz

Antenna connector:
BNC

Audio connector:
XLR-3-32

Network connector:
RJ-45 10Base-T

Power requirements:
AC -100 to 240 Volts
50/60 Hz DC - 10 -24 Volts

Power consumption:
50W with 4 x WRU-8N installed

Weight:
3.7 kg

Dimensions:
482 (W) x 44 (H) x 300 (D) mm

Supplied Accessories

Operation manual

Module port covers (x 3)

PC Control software

Optional Accessories

WRU-8N

AN-820A

WRU-8N

UHF Wireless Microphone Receiver Module

- Unique modular designed wireless microphone receiver
- Compact design
- Auto channel assign and set up
- Easy to read LCD display
- Pre-programmed frequency groups
- 24 MHz switching channels
- Remote PC control & monitoring
- SAW filters
- Back-lit LCD
- Transmitter low battery alarm
- Push and set Jog-wheel
- Simple to operate front panel controls
- UHF operating frequency dependant on version / region

Specifications

Reception:
Diversity

Signal to Noise:
60 dB or more (A-weighted)
At 60 dBu RF input at reference deviation (A-weighted)

Selectivity:
60 dB or more ± 250 KHz

Power requirements:
DC 5 Volts
Supplied from MB-8N

Weight:
165 g

Dimensions:
56 (W) x 30.7 (H) x 149 (D) mm

Supplied Accessories

Operation manual

WRT-822B

Beltpack Transmitter

- Rugged magnesium alloy body
- Ultra stable RF performance
- PLL frequency synthesizer
- Pilot tone audio squelch system
- Pre-programmed frequency groups
- Easy-to-read LCD display
- Six hours operation from two AA cells
- Quick-load battery system
- Low Battery alarm (monitored via receiver)
- UHF operating frequency dependant on version / region

Specifications

Frequency response:
70 Hz – 15 kHz

RF power output:
20 mW

Weight:
165 g (including batteries)

Dimensions:
63 (W) x 103 (H) x 17 (D) mm

Supplied Accessories

Reversible leatherette case with sprung metal beltclip

WRT-8B

UHF Wireless Microphone Transmitter

- Die-cast magnesium housing
- Easy to operate
- Low running costs
- Pre-programmed frequency groups
- 24 MHz switching channels
- Compact design and durable housing
- Easy to read LCD display
- Pilot tone squelch
- 10 mW & 50 mW RF output
- Mic or Line level input
- Operating frequency dependant on version / region

Specifications

Frequency response:
40 Hz - 20 KHz

Signal to Noise:
60 dB or more (A-weighted)

Input Level:
Mic or Line selectable

Power Requirements:
2 x AA cells DC 3 Volts

Weight:
Approx. 140 g inc batteries

Dimensions:
63 (W) x 83 (H) x 17 (D) mm

Supplied Accessories

Operation manual

Soft case

XLR-3 Input cable

Spare Battery Carrier

WRT-807B

Handheld Transmitter

The WRT-807B UHF handheld transmitter is designed for high-quality vocal reproduction in today's demanding environments.

- PLL frequency synthesizer
- Pilot tone audio squelch system
- Pre-programmed frequency groups
- Easy-to-read LCD display
- Power switch with lock function
- Dynamic mic capsule with cardioid response
- High-quality CCAW voice coil with AlNiCO magnet
- Low Battery alarm (monitored via receiver)

Specifications

UHF operating frequency:
Dependent on version / region

Capsule:
Dynamic super-cardioid

Frequency response:
50 Hz – 15 kHz

RF power output:
10 mW

Battery life:
5 hours from 1 x AA cell (typical)

Weight:
440 g (including battery)

Dimensions:
Ø63 x 238 mm
(excluding antenna)

Supplied Accessories

Microphone holder

Stand adaptor

WRT-847B

Handheld Transmitter

The WRT-847B UHF handheld transmitter allows outstanding flexibility with a range of four interchangeable capsules. In addition the WRT-847B provides wide dynamic range, low noise and stable RF transmission.

- PLL frequency synthesizer
- Pilot tone audio squelch system
- Pre-programmed frequency groups
- Easy-to-read LCD display
- Power switch with lock function
- Selectable RF power output
- Low Battery alarm (monitored via receiver)

CU-F780
Dynamic super-cardioid capsule

CU-E700
Electret condenser super-cardioid capsule

CU-E672
Electret condenser hyper-cardioid capsule

CU-F117
Dynamic omni-directional capsule

Specifications

UHF operating frequency:
Dependent on version / region

Frequency response:
50 Hz – 15 kHz

RF power output:
10/50 mW, switchable

Battery life:
8 hours from 2 x AA cells (10 mW output, typical)

Weight:
150 g (excluding batteries)

Dimensions:
Ø37 x 150 mm
(excluding antenna)

Microphone Capsules for WRT-847B Transmitter

- **CU-F780:** Live vocal and speech applications
  Frequency response: 50 Hz – 18 kHz,
  Weight: 180 g, **Dimensions:** Ø51 x 90 mm
- **CU-E700:** Live vocal, Interviews and ENG applications
  Frequency response: 50 Hz – 18 kHz,
  Weight: 170 g, **Dimensions:** Ø51 x 98 mm
- **CU-E672:** Interviews, ENG and sound effects applications. Supplied windshield
  Frequency response: 50 Hz – 16 kHz,
  Weight: 150 g, **Dimensions:** Ø37 x 172 mm
- CU-F117: Interviews, ENG and Q&A applications. Supplied windshield
  Frequency response: 50 Hz – 15 kHz
  Weight: 170 g, **Dimensions:** Ø44 x 105 mm

WRU-806B

Synthesized Diversity Receiver Module

The WRU-806B is a UHF diversity receiver for use with the MB-806A receiver base unit. It offers outstanding performance and reliability from a unique modular wireless microphone system.

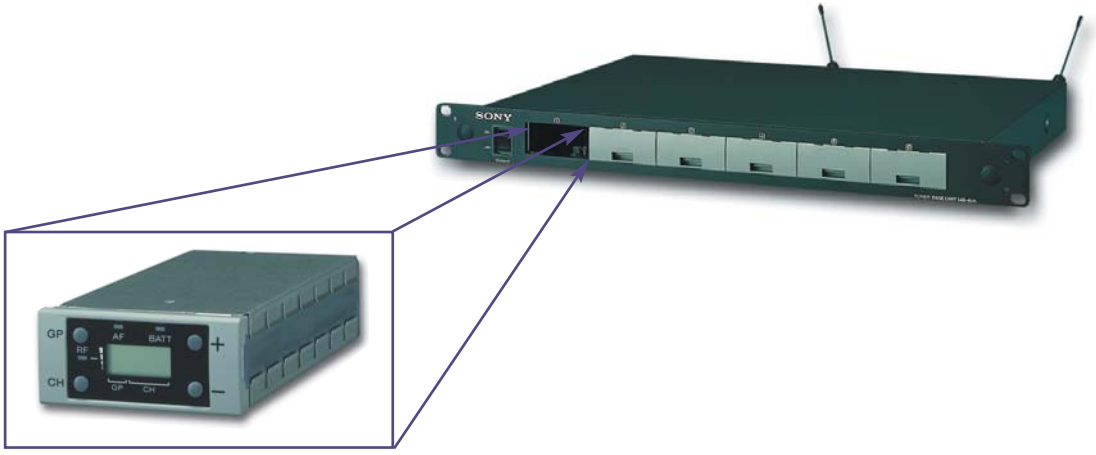
- Easy-to-read LCD display
- Pre-programmed frequency groups
- SAW filters for exceptional rejection of unwanted signals
- Auto channel assignment and RF detection
- Low Battery alarm for transmitter battery
- Back-lit display

MB-806A

Receiver Base Unit

The MB-806A is a unique 1U base frame that houses up to six WRU-806B diversity receivers. It includes a built-in antenna divider.

- Quick slot-in receiver ports
- RF input attenuator, selectable 0/10 dB
- Rear or front mounting for antennas (BNCs)
- Powers AN-820A active antennas
- Balanced XLR output
- Mic / Line output selection
- Quick module-release system
- Auto channel selection / set-up feature



Specifications

UHF operating frequency:
Dependent on version / region

Frequency response:
100 Hz – 15 kHz

Signal to noise:
>99 dB at maximum deviation

Current consumption:
600 mA, provided from MB-806A receiver base unit

Weight:
160 g

Dimensions:
57(W) x 26(H) x 122(D) mm

Specifications

Power consumption:
30 W

Weight:
3.6 kg
(excluding WRU-806B receiver units)

Dimensions:
482(W) x 44(H) x 300(D) mm

Supplied Accessories

N/A

WRR-855B

Integral Camcorder Diversity Receiver

The WRR-855B UHF diversity receiver is designed to slot into Sony Betacam camcorders. See page 6.

- Top-mounted LCD display
- Water resistant structure
- Compact design
- LED RF and AF indications
- Pre-programmed frequency groups
- Switchable RF muting
- Mounts on non-SX camcorders with optional adaptors

CA-WR855
mounting adaptor

BTA-801
camera mounting adaptor

A8278-057A
adaptor bracket

Specifications

UHF operating frequency:
Dependent on version / region

Frequency response:
100 Hz – 15 kHz

Signal to noise:
>60 dB A-weighted

Current consumption:
200 mA

Weight:
280 g

Dimensions:
88(W) x 118(H) x 31(D) mm

Supplied Accessories

Antenna (x2)

Optional Accessories

CA-WR855
Enables a WRR-855B to be mounted between the rear of a Sony DSR-300/500 series DVCAM camcorder and its battery

BTA-801
Enables a WRR-855B to be mounted on cameras with an NP-1 battery holder. This adaptor also allows external DC powering of a WRR-855B

A8278-057A
Enables a BTA-801 adaptor to be mounted on the rear of Sony cameras with no NP-1 battery holder

WRR-862B

Twin-channel Diversity Receiver

The latest in technology has permitted the introduction of the surprisingly small WRR-862B. It comprises two UHF diversity receivers in one housing and offers extreme flexibility for ENG and EFP applications. See page 6.

- Comprehensive LCD and LED indication for both channels
- Internal or external powering
- Switchable muting level
- Headphone monitoring for each or both channels
- Rugged magnesium housing
- Top mounted output connectors

Specifications

UHF operating frequency:
Dependent on version / region

Frequency response:
40 Hz – 18 kHz

Signal to noise:
>65 dB A-weighted

Battery life:
5 hours from 4 x AA cells (typical)

Weight:
400 g (including batteries)

Dimensions:
89(W) x 120(H) x 29(D) mm

Supplied Accessories

Case
Camera mounting kit
Antenna (x2)
Output cable (XLR x2)
External DC power lead

AN-820A

Omni-directional Active Antenna

The AN-820A is an active antenna for enhancing performance of multi-channel wireless microphone systems.

- Built-in RF amplifier (+10 dB gain)
- Wall or mic stand mountable
- LED power indication
- Compatible with WRR-850A receivers, MB-806A receiver base units and WD-820A antenna dividers
- Discrete design
- Overcomes coaxial cable loss
- Powered from receiver or antenna divider
- Paired use for diversity reception

Specifications

Weight:
250 g

Dimensions:
70(W) x 177(H) x 132(D) mm

Supplied Accessories

Wall mount bracket

Mic stand mount

Wireless Transmitter/Receiver Accessories

K-1324

- Rewireable mic connector

EC-1.5CF Microphone Cable

- Provides an XLR input to WRT-860A and WRT-822B transmitters for the connection of a dynamic microphone or other low-level audio source
- Enables a microphone, or other low-level sound source with a 3-pin male XLR output connector, to be connected to a WRT-822A/860A transmitter
- Cable length 1.5 m

UWP Series UHF Synthesized Wireless Microphone System

The UWP Series UHF Synthesized Wireless Microphone System offers camera crews, performers, musicians and audiovisual presenters superb wireless diversity performance at a truly affordable price.

Built around five core elements – a lavalier/bodypack transmitter, a wireless handheld microphone, a portable tuner, a half-rack-size tuner, and a tuner module, the UWP Series is available in six turnkey packages, each comprising a microphone, transmitter and tuner. Packs contain all required accessories for 'straight from the box operation'.

Specifications common to all UWP range products include:

Carrier/receiving frequencies CE model:
798 MHz to 822 MHz (TV channels 62 to 64) or 838 MHz to 862 MHz (TV channels 67 to 69). Users may choose from 189 frequencies on each model

LCD display providing extensive information

Portable Tuner

- Space diversity reception system for stable RF reception
- Angle-adjustable antennas
- Approximately six hours of continuous operation with two AA-size alkaline (LR6) batteries
- Stereo mini jack and monitor-volume control

Specifications

Type of reception: Space diversity

Frequency response: 50 Hz to 18 kHz (typical)

Power requirements: DC 3.0 V (two AA-size alkaline (LR6) batteries)

Dimensions (W x H x D): 63.0 x 100.0 x 30.0 mm (2 1/2 x 4 x 1 3/16 inches)

Mass: Approx. 180 g (6 oz) including batteries

Lavalier microphone and Bodypack Transmitter

Bodypack Transmitter:

- Compact and lightweight design
- Selectable RF-output level: 5 mW / 30mW

Lavalier Microphones:

- Omni-directional type for the UWP-C1 package
- Uni-directional type for the UWP-S1 and UWP-X1 packages
- Approximately six hours of continuous operation with two AA-size alkaline (LR6) batteries

Specifications

RF power output: 30 mW or 5 mW (selectable)

Frequency response: 50 Hz to 18k Hz (typical)

Power requirements: DC 3.0 V (with two AA-size alkaline (LR6) batteries)

Mass: Approx. 140 g (4.9 oz) including batteries

UWP-C1

Turnkey Package

- Omni-directional lavalier microphone, bodypack transmitter and portable tuner
- Lavalier microphone is supplied with a microphone windscreen and microphone-holder clip
- Bodypack transmitter is supplied with a belt clip
- Portable tuner is supplied with a microphone stand adaptor, screw adaptor, shoe-mount adaptor for mounting on a camcorder and microphone cable (3-pole mini-plug/XLR-type)

Handheld Microphone

- Uni-directional, dynamic microphone capsule
- Internal antenna design
- Selectable RF-output level: 5 mW / 30 mW
- Approximately six hours of continuous operation with two AA-size alkaline (LR6) batteries

Specifications

RF power output: 30 mW or 5 mW (selectable)

Power requirements: DC 3.0 V (with two AA-size alkaline (LR6) batteries)

Microphone capsule: Dynamic capsule (uni-directional)

Frequency response: 100 Hz to 18 kHz (typical)

Dimensions: ø52 x 240 mm (ø2 1/8 x 9 1/2 inches)

Mass: Approx. 300 g (10.6 oz) including batteries

UWP-C2

Turnkey Package

- Handheld microphone and portable tuner
- Handheld microphone is supplied with a microphone holder and screw adaptor
- The portable tuner is supplied with a microphone stand adaptor, screw adaptor, shoe-mount adaptor for mounting on a camcorder, belt clip and microphone cable (3-pole mini-plug/XLR-type)

19-Inch Half Rack Size Tuner

- Space diversity reception system for stable RF reception
- Angle-adjustable antennas to help eliminate signal dropout
- Equipped with both XLR (balanced) and 1/4-inch phone (unbalanced) type output connectors
- Supplied with an AC/DC adaptor

Specifications

Type of reception: Space diversity

Frequency response: 50 Hz to 18 kHz (typical)

Power requirements: DC 9.0V

Dimensions (W x H x D): 212.0 x 44.0 x 209.0 mm (8 3/8 x 1 3/4 x 8 1/4 inches)

Mass: Approx. 1.3 kg (2 lb 14 oz)

Tuner Module

- Compact, plug-in diversity tuner module. Up to two tuner modules can be installed into a Sony all-in-one type presentation mixer/amplifier (SRP-X700P or SRP-X351P), while a maximum of six modules can be installed in the Sony MB-806A tuner base unit
- Space diversity reception system for stable RF reception

Specifications

Type of reception: Space diversity

Frequency response: 50 Hz to 18 kHz (typical)

Power requirements: DC 9.0V

Dimensions (W x H x D): 56.6 x 25.5 x 121.0 mm (2 1/2 x 1 1/16 x 4 7/8 inches)

Mass: Approx. 150g (5.3 oz)

UWP-S1

Turnkey Package

- Uni-directional lavalier microphone, bodypack transmitter and half-racksize tuner
- Lavalier microphone is supplied with a microphone windscreen and microphone-holder clip
- Bodypack transmitter is supplied with a belt clip
- Half-rack-size tuner is supplied with an AC/DC adaptor

UWP-X1

Turnkey Package

- Uni-directional lavalier microphone, bodypack transmitter and tuner module
- Lavalier microphone is supplied with a microphone windscreen and microphone-holder clip
- Bodypack transmitter is supplied with a belt clip

UWP-S2

Turnkey Package

- Handheld microphone and half-rack-size tuner
- Handheld microphone is supplied with a microphone holder and screw adaptor
- Half-rack-size tuner is supplied with an AC/DC adaptor

UWP-X2

Turnkey Package

- Handheld microphone and tuner module
- Handheld microphone is supplied with a microphone holder and screw adaptor

HEADPHONES

With modern digital techniques revealing every nuance in the recorded audio signal, an accurate headphone reference becomes more vital than ever. You'll find Sony professional headphones wherever there's a need to monitor audio accurately and comfortably, even for extended periods.

In the recording studio, at outside broadcasts, in theatres, clubs and live concert venues, Sony headphones are the choice of musicians, sound engineers, camera crews and DJs thanks to their rich, uncoloured reproduction of all types of programme material. Check the specifications of every Sony headphone and you'll notice the high sensitivity and extended frequency response that are the hallmark of truly professional designs. Equally importantly, Sony headphones are designed with wearability in mind – a priority during the most gruelling recording session or the longest DJ set.

Painstakingly engineered for a lifetime of dependable service, the Sony headphone line-up combines state-of-the-art transducer technologies with the highest specification materials like amorphous diamond and Neodymium magnets. Sony professional headphones are also distinguished by practical features and detailing to set them apart from other models. The reference-standard MDR-7509, for example, offers swivel cup housing and an ingenious self-closing design that eliminates unwanted noise spillage when the headphones are not being worn.

Teaming durability and practicality with assured comfort and truly exceptional audio performance, the Sony range of professional headphones is the number one choice for professionals who demand the ultimate audio reference.

MDR-7502

Cost-effective Professional Headphones

- Lightweight headphones for general purpose monitoring
- Designed for long-term use without listening fatigue
- High sensitivity and deep bass response

Specifications

Frequency response:
60 Hz – 16 kHz

Sensitivity:
102 dB/W/m

Power:
500 mW

Weight:
145 g (excluding cable)

Supplied Accessories

Protective carrying pouch

3.5/6.3 mm Unimatch™ adaptor

MDR-7505

Compact, Professional Headphones

- Excellent sound quality and extended frequency response
- Designed for long-term use without listening fatigue
- Suitable for critical monitoring even in noisy environments
- Convenient folding design

Specifications

Frequency response:
10 Hz – 25 kHz

Sensitivity:
106 dB/W/m

Power:
1 W

Weight:
220 g (excluding cable)

Supplied Accessories

Protective carrying pouch

3.5/6.3 mm Unimatch™ adaptor

MDR-7506

Reference Monitoring Headphones

- Excellent sound quality suitable for critical monitoring
- Designed for long-term use without listening fatigue
- Ideal for broadcast and recording studios
- Convenient folding design

Specifications

Frequency response:
10 Hz – 20 kHz

Sensitivity:
106 dB/W/m

Power:
3 W

Weight:
220 g
(excluding cable)

Supplied Accessories

Protective carrying pouch

3.5/6.3 mm Unimatch™ adaptor

MDR-7509

High-powered Reference Headphones

- Enclosed design for good isolation from external noise
- Superb audio quality and large dynamic range
- Excellent frequency response
- Designed for the most critical audio monitoring
- Convenient folding design

Specifications

Frequency response:
5 Hz – 30 kHz

Sensitivity:
107 dB/W/m

Power:
3 W

Weight:
300 g (excluding cable)

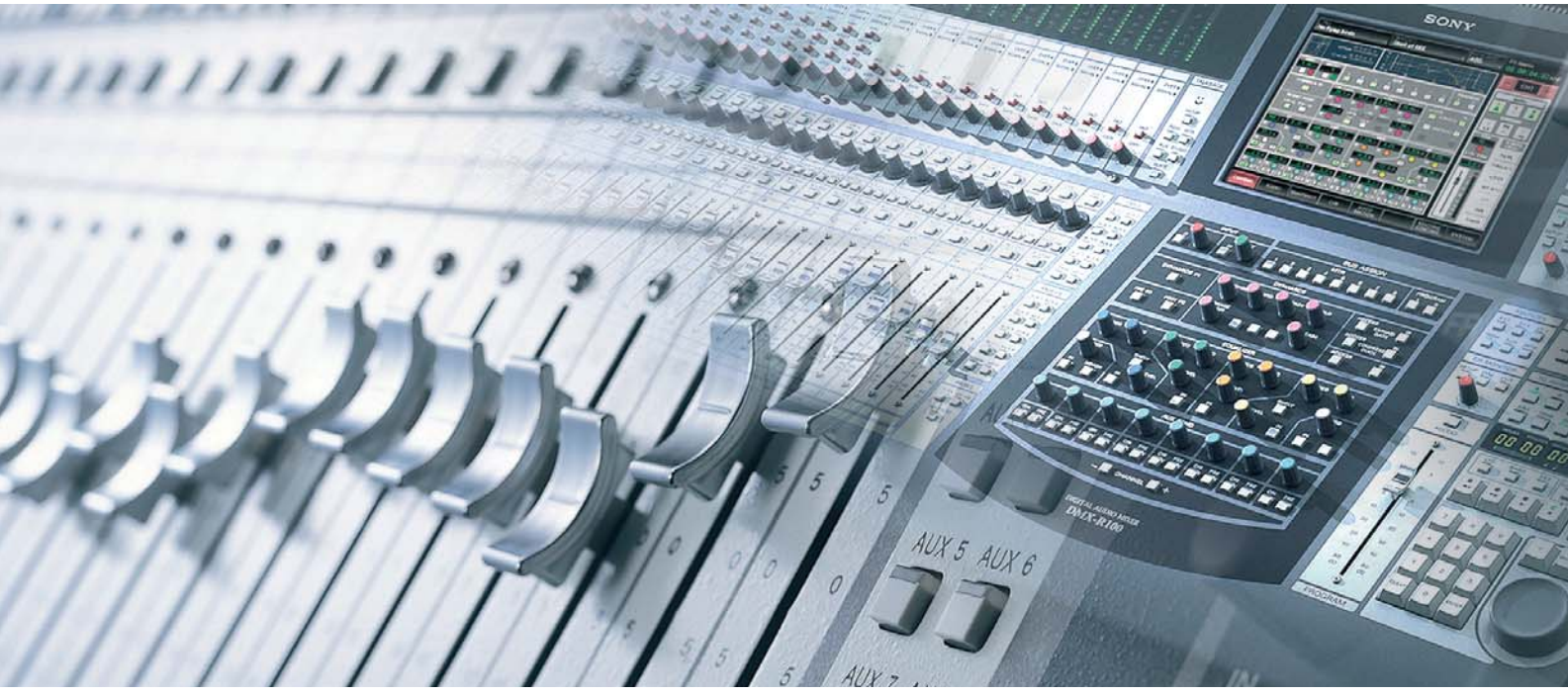
Supplied Accessories

Protective carrying pouch

3.5/6.3 mm Unimatch™ adaptor

MIXERS

The challenges are similar, whether you're overseeing live sound for a television outside broadcast or making an album in your own private studio. Mixing – the most involved and creatively demanding part of the audio production process – demands a console with a host of interfacing, processing and control options that never detract from the purity of the audio source.



The Sony range of digital and analogue mixers for production, broadcast and presentation applications gives you more tools to help you work more effectively and creatively. Superbly engineered for years of dependable performance, every Sony mixing console has been designed to offer maximum operational flexibility without getting in the way of fast, efficient working. Whenever great-sounding audio matters, Sony mixers are a crucial part of the production and presentation process.

Reflecting the rise of digital television production, Sony introduces the DMX-P01: a remarkable new portable digital mixer that delivers superb sound quality and a host of user enhancements. The DMX-P01 is tailored specially for in-the-field acquisition projects, offering 24-bit processing, digital outputs and video-friendly features in a rugged, highly portable package.

Analogue mixer technology has much to offer, especially in terms of familiarity and ease of use. There are three remarkable analogue mixers in the Sony range, two for general purpose audio mixing functions and the SRP-V200 video edit suite mixer.

The expanding DMX-R100/1 mixer platform

Teaming multi-format mixing capabilities with world class digital processing and automation capabilities, the Sony DMX-R100/1 has revolutionised the mixing process. For the first time, this digital 8-bus mixer has made 'big console' performance and features affordable for project studios, broadcast facilities, theatres, live sound reinforcement and audiovisual presentation users everywhere. This revolutionary mixer now becomes more versatile still with the optional SIU-100 System Interface Unit. Site the SIU-100 on stage and feed digitised microphone and instrument sources free of noise or interference to the DMX-R100/1 up to 300 meters away. Alternatively, install the SIU-100 in your studio's machine room to provide integrated signal management that can be re-configured instantly. By adding the DMBK-R109 MADI interface card to a pair of DMX-R100/1 mixers, it's now possible to cascade both units and mix over 100 channels simultaneously – accommodating the biggest studio or live projects with ease.

see page 25-28

DMX-P01

The DMX-P01 is the first digital ENG/location mixer in the world, providing high quality audio and easy operation. Teaming the advantages of digital technology with user-friendly 'analogue-style' operation, the DMX-P01 offers professional users many features never before seen on a portable mixer.

High sound quality with digital technology
Totally digital audio processing provides high sound quality for ENG and EFP applications.

High quality digital limiter/compressor
On-board digital limiter and compressor helps deliver controllable, high quality sound in a compact package.

Full parameter controls on front panel
Clear, logical control placement assists fast, dependable operation. Parameters that are used less frequently are stored internally and accessed only when required.

Panel-Lock and Parameter-Lock Features
Panel-lock feature safeguards against inadvertent operation, while Parameter-Lock feature prevents accidental parameter changes.

Flexible Meter Scales
Meter calibration can be switched instantly without the need to replace the entire meter display. Six easy-to-change meter scale sheets are supplied: VU, PPM1 (BBC-type), PPM (DIN-type), PPM3 (NORDIC-type), PPM4 (IEC-type1), and dBFS.

Camera-Audio Return-Level Check
Sound engineers can verify visually that mixer audio levels match those recorded to a camcorder tape.

Memory Function
Mixer parameters can be stored and recalled at any time via two memory functions: 'Power-On Memory Recall' and 'Scene Memory Recall'.

Digital cascade
Dual DMX-P01 units can be cascaded via a direct digital connection between mixers to accommodate the largest projects.

Digital Output
Digital outputs allow direct interfacing with other equipment such as DAT recorders. AES/EBU and S/PDIF coaxial interfaces are available.

Specifications

AD Converter:
24-bit, 48 kHz/96 kHz sampling rate

DA Converter:
24-bit, 48 kHz/96 kHz sampling rate

Internal Signal Processing:
32-bit

Low Cut Filter Frequency:
50 Hz to 400 Hz (48 kHz sampling)

70 Hz to 400 Hz (96 kHz sampling)
12 dB/octave in both 48 kHz and 96 kHz sampling

Input Limiter:
Threshold; 0 to +20 dB (2 dB step)

Output Limiter/ Compressor:
Compressor threshold; OFF, -20 to +10 dB (2 dB step)
Ratio; 2:1, 4:1, 6:1, 10:1
Attack time; Slow (100 ms), Mid (10 ms), Fast (0.5 ms)
Release time; Slow (2.0 s), Mid (1.0 s), Fast (0.1 s)

Frequency Response:
20 Hz to 20 kHz, +0.5/-1 dB (Fs=48 kHz)
20 Hz to 40 kHz, +0.5/-3 dB (Fs=96 kHz)

Dynamic Range:
96 dB

Level meter calibration:
VU, PPM1 (BBC-type), PPM2 (DIN-type), PPM3 (NORDIC-type), PPM4 (IEC-type1), dBFS. (Default setting is dBFS)

Operating Voltage:

Internal:	DC 12 V (eight AA-size (LR6) alkaline batteries)
External:	DC 10 V to 15 V via XLR 4-pin connector or BP-90 type connector

Battery life:
Approx. 5 hours (with Sony alkaline batteries LR6SG, at 25°C, LCD backlight and +48 V output are OFF, 48 kHz sampling)

Mass:
Approx. 2.2 kg (4 lb 13 oz)

Dimensions (W x H x D):
266 x 68 x 206 mm
(10 1/2 x 2 3/4 x 8 1/8 inches)

DMX-R100/1

Professional Digital 8 bus Mixer

- Designed for a wide range of audio applications including music studios, location recording, post production and Live TV/theatre
- Extensive audio processing, including
  - 24 Mic/line inputs
  - 48 input channels with 18 mix buses
  - 66 EQ (4 bands) and dynamics processing sections
  - LP/HP and 1 second programme delay on all Input channels
  - Capable of handling modern production tasks, including Surround Sound (5.1) processing and ability to operate at standard and double sample rate modes
- Extensive automation capabilities (snapshot and dynamic modes)
- Critically acclaimed analogue processing quality
- EQ and dynamics libraries
- Superb control surface ergonomics featuring 25 high quality touch sensitive faders
- Simple to integrate into professional studios
- Highly flexible input and output routing matrices
- Flexible audio I/O configurations with I/O slots and eight types of optional I/O cards
- Comprehensive machine interfacing including 9-pin, MIDI machine control and a timecode reader/generator
- Multiple synchronisation modes including video and wordclock reference inputs

Specifications

Power consumption:
200 W

Weight:
55 kg

Dimensions:
119(W) x 267(H) x 690(D) mm

Optional Accessories

DMBK-R101 8 channel analogue input card

DMBK-R102 8 channel analogue output card

DMBK-R103 AES/EBU I/O card (8 mono inputs and 8 mono outputs)

DMBK-R104 8 channel digital input card with sample rate converter (AES/EBU and SPDIF)

DMBK-R105 analogue insert cards with 8 unbalanced inputs and outputs

DMBK-R106 8 channel ADAT interface card

DMBK-R107 8 channel TDIF interface card

DMBK-R109 48 channel MADI interface card

DMSK-R100AE (free download)

Windows based editing programme for DMX-R100/1 Title files

- Stand alone windows application for 'off-line' editing
- Intuitive to use, based on DMX-R100/1 control GUIs
- Enhanced editing functions
  - All audio functions
  - Snapshots and dynamic automation
  - Cut and paste editing, allowing data to be combined from multiple Titles, Scenes and library entries
  - Title conversion to different sample rates
- Multiple purpose
  - Off-line preparation
  - Off-line DMX-R100/1 training
  - Fast Title text entry
  - Fast Title editing
  - Enhanced studio management, including the ability to archive session Title data

SIU-100 and SIU-100T System Interface Unit

Audio signal management in the typical audio production system is handled by a complex array of patch bays, multi-core cables, format converters and distribution amplifiers. While this traditional method of signal management is highly configurable, within modern all-digital production environments it has become increasingly desirable to integrate signal management functions with studio automation and other systems.

The SIU-100 System Interface Unit provides an alternative method for managing audio signals, offering an integrated and digitally managed replacement for traditional signal management systems. Signal patching and distribution is achieved by the SIU-100's integral audio router; large multi-cores are replaced by a single MADI cable; format conversion is handled by the installed DMBK cards; and the SIU-100's scene-based automation allows system parameters to be recalled instantly from pre-programmed memories. The SIU-100 can be flexibly configured to support popular analogue and digital signal formats, while being highly suitable for 'real time' audio networks that require minimal processing latency.

The SIU-100 is a stand-alone device, but it is also compatible with the DMX-R100/1 mixer to offer expanded signal interfacing. With two MADI boards installed, the SIU-100 can be used to share I/O resources between two DMX-R100/1 mixers, or multiple SIU-100 units can be cascaded to expand input and output capabilities even further.

Ideal for theatrical presentations, outside broadcasts and other live events, the SIU-100 can also operate as a digital stage box, remotely controlling and routing DMBK-S101 mic and line inputs to the DMX-R100/1, which can be sited as far as 300 m from the stage. With live music applications often requiring quick parameter adjustments for dozens of microphone inputs, the optional SIU-RM101 Remote Control Unit gives sound engineers at-a-distance control over gain level, pad and phantom microphone power via physical rotary knobs and buttons. The easy-to-read displays provide extensive information on channel number, gain levels and input-level alarm indications.

- Large signal capacity: up to 160 input and output signals can be configured in a single rack
- Support of popular audio formats: up to eight I/O cards can be fitted featuring DAT, TDIF, AES/EBU, analogue and MADI interfacing
- Large routing capability: the SIU-100 includes a 160 x 160 router allowing any input to be routed to any combination of outputs
- Multiple control modes: all SIU-100 functions can be controlled from the front panel and external computer
- Supports Internet Protocol (IP) for remote computer control
- Low and constant processing latency: the SIU-100 is suitable for critical applications such as artist monitoring and surround sound production
- Compatible with DMBK-S101 microphone/line interface card and SIU-RM101 controller, allowing remote stage box configuration
- 255 scene memories, allowing pre-programmed modes to be stored and instantly recalled. Scene memories can be remotely recalled from MIDI programme changes
- Headphone monitoring, allowing all input signals to be monitored from the SIU-100
- Signal metering and status display
- Multiple sampling rates including standard, double and 'dropdown' modes o (44.1 kHz / 47.592 kHz / 48 kHz / 88.2 kHz / 96 kHz)
- Multiple Sync Options: Internal Sync / Word Sync / DI Sync / Video Sync (available SD and HD): 23.98 / 24 / 25 (PAL) / 29.97 (NTSC) / 30 / 50 / 59.94 / 60 (Hz)
- SIU-100T dual power supply version provides added on-air security

SIU-100/SIU-100T Specifications

Sampling Frequency:
1Fs : 44.1 / 48 / 47.952 kHz +/-12.5%
2Fs : 88.2 / 96 kHz +/-12.5%

Power requirement:
AC100-240V 50/60Hz

Power consumption:
Maximum 130W (With option boards for all the slots)

Operating temperature:
5° to 35°C

Mass:
12 kg

Dimensions:
481(W) x 4221.2(H) (5U) x 365(D) mm

MADI: THE SMARTER SOLUTION FOR TRANSMITTING MULTIPLE DIGITAL AUDIO CHANNELS

Providing a smarter digital alternative to transmitting audio via bulky analogue multi-core cables, the MADI (Multi-channel Audio Digital Interface) standard allows transmission of 56 digitally encoded audio signals at standard sampling rates of 44.1 or 48 kHz using a single co-axial or fibre optic cable. Supported by many professional audio manufacturers, the MADI format transmits the data as 28 AES/EBU channel pairs at 24-bit resolution with associated channel status information. By reducing the number of audio channels, MADI can also transmit at higher sampling rate signals – up to 28 mono channels at 96 kHz.

There are many factors driving the importance of the MADI format in modern production systems, including growth in demand for larger all-digital productions and the requirements of surround sound processing. MADI is an attractive technology as it provides a simple method of transmitting multi-channel audio over long distances without degradation - a major benefit in applications such as outside broadcast facilities and live venues. MADI is also the perfect choice in modern surround sound production systems that demand large amounts of audio processing, transmission and storage. Sample accurate transmission in MADI is important in matrixed surround systems, where 'bit slip' can cause serious audio problems with various surround encoders. In particular, MADI can be used to transmit 5.1 surround sound sampled at 96 kHz – one of the most demanding audio mastering formats specified for DVD-V.

DMBK-R109

MADI format interface card for DMX-R100/1 and SIU-100

- 56 channel I/O card for SIU-100
- 48 channel I/O card for DMX-R100/1
- Cascade interface for DMX-R100/1
- Provides MADI interfacing capability for DMX-R100/1 and SIU-100
- High-density audio transmission on a single cable providing an alternative to traditional method of distributing audio signals on multi-core cables
- Fibre and co-axial cable interfacing allows low cost cabling for short distances (co-axial) or long cable length (fibre)
- Standard and double sample rates supported (NB: at double sample rates, channel count is reduced to 28)
- Additional wordclock interfacing (as recommended in the MADI specification)
- Dual DMX-R100/1 cascade mode requires DMBK-R109 cards to be installed in both mixers

Specifications

Sampling Frequency:
1Fs : 48ch at 44.1, 48 kHz ±12.5%
2Fs : 24ch at 88.2, 96 kHz ±12.5%
(DMX-R100 is 96 kHz maximum)

Power requirement:
+3.3 V (Maximum Current 500 mA)
+5 V (Analog) (Maximum Current 1000 mA)

Power consumption:
5.7 W (Typical)

Operating temperature:
5° to 35°C

Storage temperature:
-20° to 60°C

Mass:
0.7 kg (including carton)

Dimensions:
206(W) x 42.5(H) x 157(D) mm

DMBK-S101

Microphone/Line input card for the SIU-100

- Eight analogue input sections suitable for both microphone and line input signals
- Digitally controlled head amplifiers for adjusting:
  - Gain (up to 66 dB)
  - Line pad (30 dB)
  - Phantom powering
- Controlled remotely from the SIU-100's front panel controls, the SIU-RM101 controller and a computer interface
- High quality electronically balanced input circuitry
- Standard and double sample rate modes supported
- Up to seven DMBK-S101 cards can be installed in the SIU-100

Specifications

Dimensions:
206(W) x 42.5(H) x 151.8(D) mm

Weight:
500 g

Power consumption:
19 W

SIU-RM101

Remote controller for DMBK-S101/SIU-100

- Eight control sections with a Rotary gain control and comprehensive display and status indicators
- 'Real time' control and display interface for the DMBK-S101 head amplifiers
- Extensive display information: channel reference, input gain and signal level
- Flexible configuration
- 25mm control section width, compatible with the DMX-R100/1 fader width
- Multiple units can be linked to configure larger sets of controls
- Paging function allowing multiple DMBK-S101 to be controlled
- Simple control interfacing with the SIU-100 via a single serial cable
- MIDI In port for remote recall of SIU-100 scene memories

Specifications

Dimensions:
200(W) x 87(H) x 68.3(D) mm

Weight:
1 kg

Power consumption:
6 W

DMX-R100/1 and SIU-100 Configurations

Option card				SIU-100 Slots		DMX-R100/1 slots	
	Audio format	Input quantity	Output quantity	1 and 2	3 to 8	1 to 3	4
DMBK-R101	Analogue (balanced)	8	0	yes	yes	yes	yes
DMBK-R102	Analogue (balanced)	0	8	yes	yes	yes	yes
DMBK-R103	AES/EBU	8 mono	8 mono	yes	yes	yes	yes
DMBK-R104	AES/EBU and sample SPDIF with rate converters	8 mono	0	yes	yes	yes	yes
DMBK-R105	Analogue (unbalanced)	8	8	yes	yes	yes	yes
DMBK-R106	ADAT	8	8	yes	yes	yes	yes
DMBK-R107	TDIF	8	8	yes	yes	yes	yes
DMBK-R109	MADI	56 (48*)	56 (48*)	yes	no	yes	no
DMBK-S101	Microphone	7**	0	yes	yes	no	no

* the MADI I/O of the DMX-R100/1 is limited to 48 inputs and outputs

** practical maximum number of DMBK-S101 cards in a SIU-100 is 7

DMBK-R101
8-channel analogue input card

DMBK-R102
8-channel analogue output card

DMBK-R103
AES/EBU I/O card (8 mono inputs and 8 mono outputs)

DMBK-R104
8-channel digital input card with sample rate converter (AES/EBU and SPDIF)

DMBK-R105
analogue insert card with 8 unbalanced inputs and outputs

DMBK-R106
8-channel ADAT interface card

DMBK-R107
8-channel TDIF interface card

SRP-V200

Analogue Video Edit Suite Mixer

- Four-bus analogue mixer for video edit suites
- 16 input channels (4 mic / line and 6 stereo inputs)
- Parallel 'audio follow video' control interfacing for edit controllers (e.g. Sony BVE-2000)
- Four-channel monitoring/preview bus with specialist 4x4 monitor matrix switcher
- Four-band equaliser
- Fader Start logic outputs
- Rack mounting brackets integrated into front panel

Specifications

Power consumption:
50 W

Dimensions:
481(W) x 140(H) x 349(D) mm

Weight:
9.4 kg

Supplied Accessories

N/A

SRP-X100

Rack Mounting 12-channel Mixer

- Compact 1U stereo mixer for sound reinforcement applications
- 12 inputs (6 mono microphone – XLR , 3 stereo – phono) with Master, Sub and Record outputs
- Four mono inputs can be switched to line inputs
- 48 V phantom power available

Specifications

Power consumption:
19 W

Dimensions:
482(W) x 44(H) x 172(D) mm

Weight:
2.6 kg

Supplied Accessories

N/A

SRP-V110

Compact 8-bus Analogue Mixer

- Rack mountable, 8-bus mixer for production and presentation systems
- 26 input channels (10 mic / line, 4 stereo inputs)
- 18 bus outputs (8 Bus, 8 Aux and Stereo Programme) and 10 direct outputs from mic / line channels
- Full multi-track audio interfacing with 8 tape Sends / Returns
- Comprehensive audio processing on mono input channels (3-band EQ and Low Cut filter)
- AFL/PFL monitoring

Specifications

Power consumption:
50 W

Dimensions:
430(W) x 120(H) x 369(D) mm

Weight:
8.7 kg

Supplied Accessories

N/A

PLAYERS / RECORDERS

As a key player in the development of audio recording and replay formats like Compact Disc, DAT, DASH and MiniDisc, the Sony name has long been synonymous with beautifully functional design and highly practical features as well as the highest audio fidelity. The staggering list of hit records made using Sony digital audio recorders is an awesome testament to the engineering expertise, experience and artistry of one of the world's most talented design teams.

Explore the Sony range of professional player/recorders and you're assured of rugged build quality, extra features like Super Bit Mapping processing, on-board limiters and EQ, plus versatile interfacing and remote control options to cope with real-world applications. While exceptional ease of use is a plus in pressured on-air and live situations, all professional users will appreciate the peace of mind that Sony after-sales support delivers. When dependable audio acquisition and playback isn't just a luxury, musicians, broadcasters and presentation specialists rely on Sony professional recorders and players, time after time.

For mastering, on-air and post production applications, Compact Disc still reigns supreme as the universal choice. Sony professional CD players add enhancements like variable play speed, Fader Start and an ESP shock-proof memory for even more convenience and reliability in the most exacting environments.

With a unique blend of performance and convenience that's already proven in thousands of radio studios and theatres around the world, Sony MiniDisc is the natural choice for multimedia presentation applications. "Hot" track starts for instant cueing of music and effects, comprehensive remote control facilities and extended recording times up to 320 minutes in a slim-line rackmounting package make the latest generation of Sony professional MD player/recorders the only option when you need to have great-sounding digital audio at your fingertips.

Familiar to engineers in recording studios, mastering facilities and post production suites the world over, the Sony range of professional DAT recorders features a rugged, high-reliability tape transport mechanism plus high-quality audio processing with Super Bit Mapping. Still the number one choice for professional two-channel production, Sony DAT is even more versatile with power features as found on the PCM-7040 like VTR-style machine control, on-board memory for instant starts and an on-board chase synchroniser.

In project studios, broadcast transmission suites and audiovisual installation at major visitor attractions, Sony digital player/recorders score over their domestic counterparts to deliver superlative audio reproduction and trouble-free performance… day in, day out.

Photography courtesy of Royal Welsh College of Music and Drama. **Photograph - Ian Homer**

CDR-W33 / CDR-W66

Professional CD Recorders

Common Functions

- Supports CD-R and CD-RW recording
- On board signal processing for analogue inputs, SBM, 3 band EQ and limiter
- CD Text compatible (writing and reading), text entry from front panel, remote controller or via the front panel PS/2 keyboard connector
- Advanced CD Recorder modes, music sync, mute record and auto track marking
- Extensive CD Player functions, fader, music scan, skip, auto pause, four program play modes, A-B repeat
- Supplied with dual-function (wired and IR) remote controller (RM-CW1)
- Headphone jack with level control

CDR-W33

- Compact CD recorder suitable for project studio applications
- High quality audio I/O (24-bit A/D and D/A converters)
- Coaxial and optical digital I/O with input sample rate converter (32 – 48 kHz)
- CRTL-S remote control interface

CDR-W66

- Compact CD recorder suitable for broadcast and project studio applications
- Compatible with CD-R and CD-RW recording and with extensive CD player functions
- High quality audio I/O (24-bit A/D and D/A converters)
- AES/EBU and SPDIF digital I/O with input sample rate converter (32 – 96 kHz)
- Comprehensive remote control options (parallel, RS-232 and CRTL-S)
- 2 x speed dubbing between machines

COMPACT disc Recordable ReWritable

CTRL-S

SBM™ Super Bit Mapping

RS 232

parallel

Specifications

Playable disks:
CD, CD-R, CD-RW

Recordable disks:
CD-R, CD-RW

Recording method:
Track at Once (TAO)

Power consumption:
15 W / 26 W

Frequency response:
20 Hz – 20 kHz +0.3/-0.7 dB

Weight:
4.6 kg / 5.2 kg

Dimensions:
482 (W) x 88(H) x 265(D) mm

Supplied Accessories

RM-CW1 Dual-function (wired and IR) Remote Controller

CDP-D12

Rackmount Compact Disc Player

- Unique 1U Professional CD player
- Suitable for production and post-production applications
- High-quality analogue outputs (balanced XLR and unbalanced phono)
- Coaxial and optical digital audio outputs (SPDIF)
- High reliability with three second Advanced ESP shock-proof memory
- Comprehensive remote control (parallel, RS-232 and CTRL-S)
- Instant Start function and 'Fader Play' mode
- Supplied dual-function (wired and IR) remote controller (RM-DS11)
- Variable play speed, +/- 12.5%
- Headphone jack with level control
- East read display panel
- Auto-cue
- Shock protection

Specifications

Power consumption:
14 W

Frequency response:
20 Hz – 20 kHz +/-0.5 dB

THD:
0.01%

S/N ratio:
better than 98 dB

Weight:
4 kg

Dimensions:
482(W) x 44(H) x 265(D) mm

Supplied Accessories

RM-DS11 Remote Controller

PCM-R300

Professional DAT Recorder

- Professional DAT recorder suitable for project studios
- High-quality analogue I/O (20-bit A/D converters) with Super Bit Mapping processing
- SPDIF coaxial and optical digital I/O
- Standard and Long Play DAT recording (48, 44.1 and 32 kHz modes)
- Full ID implementation
- Supplied with IR remote controller
- Headphone jack and level control

Specifications

Power consumption:
18 W

Frequency response:
20 Hz – 22 kHz +/-0.5 dB (48 kHz sampling)

Weight:
5 kg

Dimensions:
432(W) x 122(H) x 325(D) mm

Supplied Accessories

IR Remote Controller

PCM-R500

Professional DAT Recorder with Four Motor Drive Transport

- Highly reliable and robust DAT recorder suitable for demanding professional applications
- High-quality audio processing with 24-bit A/D converters and Super Bit Mapping coding
- AES/EBU and SPDIF digital I/O
- Standard and Long Play DAT recording (48, 44.1 and 32 kHz modes)
- Full ID implementation with the ability to record / edit IDs without affecting the audio and record IDs through the digital I/O
- Comprehensive remote control options (parallel and CRTL-S)
- Absolute time DAT recording
- Headphone jack and level control

SBM Super Bit Mapping · CTRL-S · DAT Digital Audio Tape · parallel

Specifications

Power consumption:
34 W

Frequency response:
20 Hz – 20 kHz +/-0.5 dB (48 kHz sampling)

Weight:
7.2 kg

Dimensions:
482(W) x 132(H) 260(D) mm

Supplied Accessories

IR Remote Controller

PCM-7040

Professional Time Code DAT Recorder

- Fully-featured time code DAT recorder, suitable for production and post-production studios
- Highly reliable four motor drive transport and four-head design
- Fully professional audio I/O with balanced analogue and AES/EBU
- Comprehensive remote control features with parallel, RS-232 and Sony 9-pin control ports
- VTR (9-pin) style machine control operation
- Time code 'gear box' processing allowing the machine to chase any regular time code format
- On-board time code chase synchroniser
- Internal, word clock and video reference sync modes
- On-board RAM memory for instant starts and edit memory
- Advance ID implementation
- Headphone jack and level control
- Supports the Sony Interactive Status Reporting (ISR) protocol

RS-232 · DAT Digital Audio Tape · Sony 9-Pin · parallel

Specifications

Power consumption:
72 W

Frequency response:
20 Hz – 20 kHz +/-0.5 dB

Weight:
10 kg

Dimensions:
424(W) x 132(H) x 360(D) mm

Supplied Accessories

N/A

Optional Accessories

RMM-31 Rack Mounting Adaptor

MDS-E10

Professional MiniDisc Recorder

- Highly compact, 1U MD recorder suitable for project studios
- Impressive audio recording quality, using the latest ATRAC-R coding (playback compatibility with all previous versions of ATRAC)
- SPDIF coaxial and optical digital I/O
- Multi-access Hot Starts
- Extended recording modes, including the new MDLP mode (320 minutes mono recording on an MD)
- Extensive RAM-based audio editing functionality, in addition to the TOC-based MD editing
- Comprehensive MD player features (multiple programme play modes, vari-speed, auto cue/pause, music scan)
- Supplied with dual-function (wired and IR) remote controller (RM-DR1E)
- PS/2 keyboard socket and CRTL-S for additional remote control
- Headphone jack and level control

MiniDisc CTRL-S

Specifications

Power consumption:
16 W

Frequency response:
5 Hz – 20 kHz +/-0.5 dB

Weight:
3.5 kg

Dimensions:
482(W) x 44(H) x 290(D) mm

Supplied Accessories

RM-DR1E Dual-function Remote Controller

MDS-E12

Fully-featured Professional MiniDisc Recorder

- Highly compact, 1U MD recorder suitable for recording and broadcast studios
- High-quality balanced analogue audio recording, using the latest ATRAC-R coding (compatible with all previous versions of ATRAC)
- SPDIF coaxial digital I/O
- Multi-access Hot Starts
- Extended recording modes, including the new MDLP mode (320 minutes mono recording on an MD)
- Extensive RAM-based audio editing functionality, in addition to the TOC-based MD editing
- Comprehensive MD player features (multiple programme play modes, vari-speed, auto cue/pause, music scan)
- Supplied with dual-function (wired and IR) remote controller (RM-DR1E)
- Comprehensive remote control options (parallel, RS-232 and CRTL-S)
- PS/2 keyboard socket for additional remote control
- 4 x dubbing function between machines
- Headphone jack and level control

RS 232 CTRL-S parallel MiniDisc

Specifications

Power consumption:
18 W

Frequency response:
5 Hz – 20 kHz +/-0.5 dB

Weight:
3.5 kg

Dimensions:
482(W) x 44(H) x 290(D) mm

Supplied Accessories

RM-DR1E Dual-function Remote Controller

Remote Control Interface Guide

Remote control is commonly found in many professional applications, offering the benefits of extra convenience and operational flexibility. Here's an at-a-glance guide to the most commonly used remote control interfaces found on Sony players and recorders.

CTRL-S (Sony serial control interface).

A proprietary serial data protocol that supports a full range of machine control functions. You'll find a CTRL-S connector on the back of most Sony player/recorders.

Parallel

Often found on higher specification models, a parallel interface offers the simplest method of remote control. Providing high levels of compatibility with a vast range of controllers, parallel interfaces support anything from simple transport functions to 'fader start' logic signals from a mixing console.

RS-232

RS-232 is a serial data interface that permits remote control from a computer system. It's typically used in larger systems where the controlling device (such as a PC) may be managing the functions of many machines simultaneously.

Sony 9-pin (RS-422)

Sony 9-pin is used throughout the video production industry for controlling VTRs in editing and transmission systems. A wide range of commands including time code reference data can be transmitted via the 9-pin port, allowing machines to be accurately synchronised. The Sony PCM-7040 offers 9-pin interfacing, allowing integration into 'time-based' control systems.

Audio Interface Guide

Sony players and recorders feature a variety of different audio interfacing formats that offer a balance between quality, flexibility of connection and cost. This guide explains some of the various terms that are used when describing the audio formats used by Sony player/recorders.

ANALOGUE AUDIO

Unbalanced

Unbalanced analogue audio is widely used as an interface for consumer as well as professional systems. The RCA phono is the most common connector for unbalanced audio, while 6.3 mm jacks are often found on musical instruments. Unbalanced audio can deliver excellent audio quality, but care must be taken when using long cable lengths in order to minimise electromagnetic (EM) interference.

Balanced

Higher specification Sony recorders and players feature electronically balanced audio interfaces that normally use XLR connectors, although Sony also uses 'TRS' 6.3 mm jacks on some products. Inherently more robust against damaging EM interference, balanced audio allows use of longer cables.

DIGITAL AUDIO

SPDIF (Sony/Philips Digital Interface)

Officially known as IEC 60958, a 'consumer friendly' digital audio interface that offers a level of compatibility with the professional AES/EBU format. SPDIF is specified for both optical cables and phono connectors, with a single cable carrying two channels of audio.

AES/EBU

The most common professional digital audio transmission format, AES/EBU carries two audio channels and additional channel status information. Normally, XLR connectors and special cables are used for AES/EBU I/O, but for short connection lengths it's often possible to use 'ordinary' analogue cables. The standard continues to evolve with the development of double sample rate modes and use of 75 ohm BNC cables.

SDIF (Sony Digital Interface)

A Sony proprietary digital format used by DASH multichannel recorders.

MULTIMEDIA PRESENTATION SOLUTIONS

The synthesis of audio with the visual image, multimedia embraces a world of entertainment, business, educational, scientific and medical presentation applications.

The effective use of multimedia is playing a growing role in the success of commercial organisations worldwide, helping companies to improve their communications and secure competitive advantage. Sales presentations, board meetings and staff conferences gain extra impact with the addition of music, effects and the spoken word to complement slide presentations or video clips delivered via DVD, video or a networked PC and data projector. In busy retail environments, customers can learn more about products on offer by listening to an audio commentary as they view the latest generation of plasma screens and interactive terminals.

Audio is also central to the enjoyment of millions of visitors to museums, galleries, theme parks and other attractions. In auditoria, lecture theatres, places of worship and other public spaces, every listener must be able to hear the spoken word with the greatest possible intelligibility. As a world leader in networked multimedia as well as music, film and television production, Sony understands the importance of high-fidelity audio in creating a compelling presentation experience that can influence, inform, educate or entertain any audience. Perfectly balanced to meet the needs of modern audiovisual production, the Sony range of amplifiers, loudspeakers, audio processors and switching systems teams exceptional reliability and sure-footed audio performance with features like weather resistant housings, balanced audio connectors, electromagnetic shielding and comprehensive protection circuitry to guard against misuse.

Sony also offers a choice of ruggedly built sound reinforcement system components and management tools that are specially optimised for theatrical and live concert applications. Whether your audience is half a dozen people in a meeting room or ten thousand music fans in the great outdoors, Sony can help you get the message across – exactly the way you want it to be heard.

SRP-X700P POWERED A/V MATRIX MIXER

Uniting a high quality audio mixer, wireless microphone receiver rack, RGB/video switcher, equaliser, active feedback reducer and power amplifier in a single, compact unit, the SRP-X700P is a totally new multimedia presentation concept. Ideal for conference rooms and lecture theatres as well as a wide range of other presentation applications, the SRP-X700P reflects a major trend in modern presentations towards combining wireless and wired microphones with audio from multimedia sources ranging from video recorders and DVD players to notebook PCs and LCD projectors.

Designed for easy integration into virtually any fixed presentation systems, the SRP-X700P exploits latest Sony digital processing technology to combine a full range of functions associated with modern A/V presentation with suberb processing quality in an 'all-in-one' package that is as easy to transport and set up as it is cost effective. The six input microphone mixer can be fitted with up to two wireless receiver modules, making it easy to combine fixed podium-style microphones such as the ECM-530 with wireless microphone transmitters such as the Sony WRT-807 and WRT-805.

Ideal for small to mid-size presentation systems, the inbuilt 'six into one' multimedia switcher allows simple selection between a wide range of video formats; PC graphics and stereo/surround sound audio modes. Digital storage and recall of up to 20 complete set-up 'snap shots' offers quick re-configuration – a valuable benefit in busy presentation applications where quick turnaround time between projects is crucial.

AUDIO INPUTS/OUTPUTS

Input	Connector	Cir cuit	Channel	Reference/ Peak Level	Impedance
MIC/WL 1,	2 XLR-3-31type	Balanced	Mono	-60 to -45 dBu/ -37 to -22 dBu	more than 2.2 kΩ
MIC 3, 4	XLR-3-31type	Balanced	Mono	-60 to -45 dBu/ -37 to -22 dBu	more than 2.2 kΩ
MIC 5, 6 (LINE 1, 2)	XLR-3-31 type	Balanced	Mono	-60 to -45 dBu/ -37 to -22 dBu -10 to +4 dBu/ -+10 to +24 dBu	more than 2.2 kΩ more than 10 kΩ
LINE 3	Phono x 2	Unbalanced	Stereo	-10 to 0 dBu/ +10 dBu to +20 dBu	more than 10 kΩ
LINE 4 (A, B, C, F)	Phono x 2	Unbalanced	Stereo	-10 to 0 dBu/ +10 dBu to +20 dBu	more than 10 kΩ
LINE 4 (D, E)	Phono x 6	Unbalanced	Stereo/ Surround	-10 to 0 dBu/+10 dBu to +20 dBu	more than 10 kΩ

Output	Connector	Cir cuit	Channel	Reference/ Peak Level	Load Impedance
LINE 1, 2	XLR-3-32 type	Balanced	Mono	+4 dBu/+24 dBu	more than 600 kΩ
LINE 3, 4, 5, 6, 7, 8	Phono x 1	Unbalanced	Mono	-5 dBu/+15 dBu	more than 10 kΩ
REC 1, 2	Phono x 1	Unbalanced	Mono	-5 dBu/+15 dBu	more than 10 kΩ

VIDEO/RGB INPUTS/OUTPUTS

Input	Connector	Signal Type
LINE 4 (A, B, C)	Phono x 1 4-pin Mini Din	Composite S Video
LINE 4 (D, E, F)	D-sub 15-pin	Component/RGB

Output	Connector	Signal Type
R/R-Y G/Y B/B-Y SYNC/HD VD	BNC x 5	Component/RGB
S VIDEO	4-pin Mini Din	S Video
VIDEO	BNC x 1	Composite

* Can switch inputs of Sony applicable Projectors automatically by using RS-232C control function when the switcher of SRP-X700P is operated.

GENERAL

Power requirement: 120/220/230 V AC, 50/60 Hz

Power Consumption: 150 W

Operating temperature: 0°C to +40°C (+32°F to +104°F)

Storage temperature: -20°C to +60°C (-4°F to +140°F)

Dimensions: 482 (W) x 132 (H) x 350 (D) mm, 3U(19 x 5 1 /4 x 13 7 /8 inches)

Mass Approx.: 13 kg (28 lb 11 oz)

Supplied Accessories:

AC Power cord (1), Operating manual (1),
IR Transmitter (1), Foot (4),
Control software disk (1)
* Requires Microsoft Windows 98SE/ME/ 2000/XP

Optional Accessories

WRU-806 UHF Synthesized Tuner Unit

AN-820A UHF Antenna

SRP-X351P

Audio Mixer with Two Wireless Microphone Receiver Sockets and A/V Switcher

- Rack mountable, integrated audio / video processor for multi-media presentation systems
- 14 audio inputs and 8 video inputs:
  - four microphone inputs with faders (inputs 1 & 2 can be configured for Sony wireless microphones)
  - two stereo inputs with faders
  - four additional stereo inputs with associated S-video and composite video inputs, selected via the front panel 4x1 matrix
- Two sockets for wireless receiver modules and antenna (Sony WRU-806B Module and AN-820A Active Antenna)
- Comprehensive outputs:
  - 'Mic Group' output for dedicated voice output
  - master audio and video outputs for external amplifiers/loudspeakers
  - 2x120 W powered audio output
  - master video output (selected from front panel switches)
- Simple interfacing to external audio processing devices:
  - Echo Send return audio interfacing
  - Insert Send / Return for 'Mic Group' and Master audio output
- Comprehensive control interfacing for 4x1 switcher (CRTL-S, IR and RS-232), supplied with remote controller (SRP-351RM)
- Motorised master volume control

Audio input/output

	Type of connector	Type of circuit	No. of channels	Reference level	Max. level	Impedance (Load impedance)
MIC input 1- 4 (Rear)	XLR-3-31 type	Balanced	4	-54 dBu	-24 dBu	2.2 kΩ
MIC input 4 (Front)	1/4-inch jack	Balanced	1	-54 dBu	-24 dBu	2.2 kΩ
ST1 input	Phono	Unbalanced	1(ST)	-10 dBu	+10 dBu	20 kΩ
ST2 input	Phono	Unbalanced	1(ST)	-10 dBu	+10 dBu	20 kΩ
ST3 input (ABCD)	Phono	Unbalanced	4(ST)	-10 dBu	+10 dBu	20 kΩ
Echo return input	Phono	Unbalanced	1(ST)	-10 dBu	+10 dBu	20 kΩ
MIC group output	Phono	Unbalanced	1(ST)	-10 dBu	+10 dBu	(More than 10 kΩ)
Echo send output	Phono	Unbalanced	1(ST)	-10 dBu	+10 dBu	(More than 10 kΩ)
Master output	Phono	Unbalanced	1(ST)	- 5 dBu	+15 dBu	(More than 10 kΩ)
Rec output	Phono	Unbalanced	1(ST)	-10 dBu	+10 dBu	(More than 10 kΩ)
Speakers output	Screw type binding terminal	-	1(ST)	125 W+125 W (8 Ω 1 kHz THD 0.1%) 170 W+170 W (4 Ω 1 kHz THD 0.1%)		

Video input/output

	Type of video	Type of connector	No. of channels
ST3 input (ABCD)	S-VIDEO	4-pin mini DIN	4
	VIDEO	Phono	4
Master output	S-VIDEO	4-pin mini DIN	2
Rec output	VIDEO	Phono	2

General

Power consumption: 400W

Power requirements: AC 120V, 230V (50/60Hz)

Dimensions: 482(W)x132(H)x350(D)mm

Mass: Approx. 15kg

Supplied accessory: Wireless remote commander SRP-351RM

PVS-880S

8 into 8 A/V Matrix Switcher

- Eight, independent, 8-way switchers
- Compact 3U design
- Simultaneous switching of composite video and unbalanced stereo audio
- Additional switching function for S-video (4 into 4)
- 50 programmable cross memories
- Output Mute function
- Front panel, RS-232 and parallel remote control
- Video reference Input and Thru Out connectors

Specifications

Audio

Frequency response:
20 Hz – 20 kHz +0.1/-0.5 dB
Crosstalk:
<-80 dB

Video

DG: <0.5%
DP: <0.5 °
Crosstalk: <-48 dB
S/N: >65 dB
K Factor (2T pulse): <0.3%

General

Power consumption:
17 W
Weight:
10 kg
Dimensions:
482(W) x 132(H) x 350(D) mm

PVS-1680S

16 into 8 A/V Matrix Switcher

- Eight, independent, 16-way switchers
- Compact 4U design
- Simultaneous switching of composite video and unbalanced stereo audio
- Additional switching function for S-video (4 into 4)
- 50 programmable cross memories
- Output Mute function
- Front panel, RS-232 and parallel remote control
- Video reference Input and Thru Out connectors

Specifications

Audio

Frequency response:
20 Hz – 20 kHz +0.1/-0.5 dB
Crosstalk:
<-80 dB

Video

DG: <0.5%
DP: <0.5 °
Crosstalk: <-46 dB
S/N: >65 dB
K Factor (2T pulse): <0.3%

General

Power consumption:
25 W
Weight:
13 Kg
Dimensions:
482(W) x 176(H) x 350(D) mm

SRP-200DA

A/V Distribution Amplifier

- Compact 1U, 5-way combined video and audio distribution amplifier
- Composite video and unbalanced audio
- 'Stack' outputs for large arrays
- Front panel video and audio signal LED indicators
- High-quality performance

Specifications

Audio

Frequency response:
20 Hz – 20 kHz +
0.1/-0.5 dB
Crosstalk:
<-90 dB at 1 kHz

Video

DG: <0.5%
DP: <0.5 °
Crosstalk: <-46 dB
S/N: >68 dB
K Factor: <0.5%

General

Power consumption:
5 W
Weight:
2.5 kg
Dimension:
482(W) x 44(H) x 175(D) mm

SRP-F300/6

Stereo Loudspeaker Management Processor

- Compact, multi-function device suitable for crossover and zoning processing in loudspeaker systems
- Flexible operating modes:
  - stereo mode: dual 3-way crossover
  - mono mode: single 6-way crossover
- Comprehensive audio processing functions:
  - two input channels with equaliser (31-band graphic or 11-band parametric), compressors and delay
  - six output channels with filters, 3-band parametric equaliser, limiter and delay
- High-quality audio processing (internal sample rate 96 kHz)
- Processing control via external PC (application software supplied), up to 99 SRP-F300 processors can be controlled from one PC
- Front panel input and output metering
- 50 programmable memories
- 'Stacking' analogue and AES/EBU outputs

Specifications

Frequency response:
20 Hz – 20 kHz +/-0.5 dB

Power consumption:
14 W

Weight:
4.5 kg

Dimensions:
482(W) x 44(H) x 360(D) mm

Supplied Accessories

N/A

SRP-FR300

Feedback Reducer

- Compact, automatic feedback reducer
- Automatically scans the input audio signal for 'howl round' frequencies and allocates up to 15 notch filters
- Additional manual allocation of notching filter
- Remote RS-232 control interface
- 20 programmable memories
- Balanced analogue audio interfacing with 'Stacking' output

Specifications

Frequency response:
20 Hz – 20 kHz +/-1.0 dB

Power consumption:
20 W

Weight:
4.7 kg

Dimensions:
482(W) x 44(H) x 370(D) mm

Supplied Accessories

N/A

SRP-P26

250 W Stereo Power Amplifier

- Rugged 3U chassis
- Balanced audio inputs (XLR, barrier strip and jack)
- Neutrik NL4 Speakon and screw terminal output connectors
- Standard output 250 W /channel into 8 ohms
- Bridged output 800 W
- Front panel volume controls and LED signal level indication
- LED status indication

Specifications

Frequency response:
20 Hz – 20 kHz +/-0.5 dB

Power consumption:
600 W

Weight:
16 kg

Dimensions:
482(W) x 132(H) x 385(D) mm

Supplied Accessories

N/A

SRP-P50

Compact Stereo Power Amplifier

- Compact 1U chassis, acoustically silent
- Excellent frequency response
- Balanced/unbalanced audio inputs (XLR and phonos) with input switchable sensitivity (-10/0 dBu)
- Standard output 50 W /channel into 8 ohms
- Bridged output 150 W
- Front panel volume controls and LED signal clip indication

Specifications

Frequency response:
20 Hz – 20 kHz +/-0.25 dB

Power consumption:
160 W

Weight:
8 kg

Dimensions:
482(W) x 44(H) x 385(D) mm

Supplied Accessories

N/A

SRP-S320/S

Compact 50 W Loudspeakers

- Conveniently small loudspeaker for general purpose sound reinforcement
- Excellent sound quality with moulded chassis and a bass reflex enclosure
- Flexible mounting options
- Supplied as a pair of loudspeakers

Specifications

Frequency response:
85 Hz – 18 kHz

Rated input power:
50 W

Maximum SPL:
106 dB/m (rated power)

Weight:
2.0 kg

Dimensions:
220(W) x 144(H) x 160(D) mm

Supplied Accessories

N/A

Optional Accessories

MU-201 Loudspeaker Bracket

SRP-S520

80 W Loudspeakers

- Convenient column design
- Safe to use in close proximity to VDUs due to internal magnetic shielding
- Excellent sound quality with two-way bass reflex enclosure
- Flexible mounting options
- Internal driver protection circuitry
- Robust, punched metal speaker grille
- Supplied as a pair of loudspeakers

Specifications

Frequency response:
65 Hz – 20 kHz

Rated input power:
80 W

Maximum SPL:
109 dB/m (rated power)

Weight:
6.6 kg

Dimensions:
170(W) x 450(H) x 215(D) mm

Supplied Accessories

N/A

Optional Accessories

MU-202 Loudspeaker Bracket

SRP-S720

110 W Loudspeakers

- Compact two-way loudspeaker, 300 W maximum power handling
- Safe to use in close proximity to VDUs due to internal magnetic shielding
- Excellent sound quality with two-way bass reflex enclosure
- Flexible mounting options
- Internal driver protection circuitry
- Robust, punched metal speaker grille

Specifications

Frequency response:
50 Hz – 20 kHz

Rated input power:
110 W

Maximum SPL:
112 dB/m (rated power)

Weight:
8.4 kg

Dimensions:
280(W) x 450(H) x 255(D) mm

Supplied Accessories

N/A

Optional Accessories

MU-202 Loudspeaker Bracket

SRP-S1000

300 W Loudspeaker

- Compact two-way loudspeaker, 900 W maximum power handling
- Constructed from a moulded wood/resin composite material, providing:
  - excellent 'wooden cabinet' sound quality
  - light weight
  - highly robust
- Neutrik NL4 Speakon connectors
- Ø36 mm top-hat mounting

Specifications

Frequency response:
75 Hz – 25 kHz

Rated input power:
300 W (EIA standard RS-426-A)

Maximum SPL:
127dB/m (rated power)

Weight:
19 kg

Dimensions:
400(W) x 583(H) x 328(D) mm

Supplied Accessories

N/A

MU-201

Loudspeaker Bracket

Allows wall & ceiling mounting of SRP-S320/S loudspeaker.

MU-202

Loudspeaker Bracket

Allows wall & ceiling mounting of SRP-S520 and SRP-S720 loudspeakers

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